

Atty. Dkt. No. 03CR254/KE (047141-0348)

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus that implements services for a waveform application, the apparatus comprising:
an object request broker that marshals data from the waveform application for communication, wherein at least a portion of the object request broker is implemented in hardware rather than software, wherein the portion of the object request broker implemented in hardware comprises an application specific integrated circuit (ASIC); and
an object request broker interface that communicates the marshaled data using a memory pool, wherein at least a portion of the object request broker interface is implemented in hardware and no middleware is used.
- 2-3. (Cancelled)
4. (Original) The apparatus of claim 1, wherein the object request broker interface comprises a pluggable protocol interface.
5. (Original) The apparatus of claim 1, wherein the object request broker interface comprises a custom interface.
6. (Previously Presented) The apparatus of claim 1, wherein the object request broker is a common object request broker architecture broker.
7. (Original) The apparatus of claim 1, wherein the memory pool comprises a multi-port memory pool.
8. (Original) The apparatus of claim 1, wherein the at least a portion of the object request broker that is implemented in hardware comprises logic and data formatting functions that are determined to consume excessive processor throughput for a software application.

Atty. Dkt. No. 03CR254/KE (047141-0348)

9. (Original) The apparatus of claim 1, wherein the at least a portion of the object request broker interface that is implemented in hardware comprises an operating system protocol stack.

10. (Currently Amended) A method of marshalling transactions for waveform application communications using a common object request broker architecture broker, the method comprising:

marshalling data from a waveform application in a first communication device, wherein at least a portion of the marshalling operation is implemented in hardware rather than software, wherein the portion of the marshalling operation implemented in hardware comprises an application specific integrated circuit (ASIC); and

interfacing the marshaled data with a second communication device using a memory pool, wherein at least a portion of the interfacing operation is implemented in hardware ~~and no middleware is used.~~

11. (Original) The method of claim 10, wherein the at least a portion of the marshalling operation that is implemented in hardware comprises logic and data formatting functions that are determined to consume excessive processor throughput for a specific software application.

12. (Original) The method of claim 10, wherein the at least a portion of the interfacing operation that is implemented in hardware comprises an operating system protocol stack.

13-14. (Cancelled)

15. (Currently Amended) A system for a joint tactical radio system (JTRS) compliant device that provides communication at low power requirements, the system comprising:

~~an a hardware implemented~~ object request broker (ORB) that marshals data from a waveform application, wherein at least a portion of the object request broker is implemented in

Atty. Dkt. No. 03CR254/KE (047141-0348)

hardware rather than software, wherein the portion of the object request broker implemented in hardware comprises an application specific integrated circuit (ASIC);

a pluggable protocol interface that communicates the marshaled data from the ~~hardware implemented~~ ORB, wherein at least a portion of the pluggable protocol interface is implemented in hardware ~~and no middleware is used~~; and

a memory pool that communicates data from the pluggable protocol interface directly and without transport overhead.

16. (Previously Presented) The system of claim 15, wherein the at least a portion of the pluggable protocol interface that is implemented in hardware comprises logic and data formatting functions of the ORB that are determined to consume excessive processor throughput for a specific software application and an interface to a shared memory pool.

17-18. (Cancelled)

19. (Original) The system of claim 15, wherein the JTRS compliant device is in an unmanned craft.

20. (Original) The system of claim 15, wherein the JTRS compliant device is a battery powered radio.

21. (New) The apparatus of claim 1, wherein no middleware is used.

22. (New) The method of claim 10, wherein the waveform application is a first waveform application associated with the first communication device, the method further comprising:

communicating the marshaled data from a second communication device to a second waveform application.

23. (New) The method of claim 10, wherein no middleware is used.

Atty. Dkt. No. 03CR254/KE (047141-0348)

24. (New) The system of claim 15, wherein the pluggable protocol interface is entirely implemented in hardware.

25. (New) The system of claim 15, wherein the object request broker is entirely implemented in hardware.

26. (New) The system of claim 25, wherein no middleware is used.